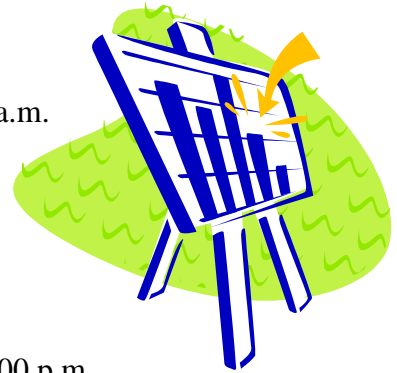


SOCIOLOGY 0110
INTRODUCTORY STATISTICS FOR
SOCIAL RESEARCH
FALL 2009

Mondays, Wednesdays, and Fridays 8:00 – 8:50 a.m.
Location: Barus and Holley, Room 166



Professor: Carrie Spearin, Ph.D.

Email: Carrie_Spearin@brown.edu

Phones: (401) 863-3668 or call the Sociology Dept.

Office: Maxcy Hall, Room 105

Office Hours: Mondays 11:00 a.m. – 12:00 p.m. and Fridays 1:00 - 3:00 p.m.

TA: Mujun Zhou

Email: Mujun_Zhou@brown.edu

Office: Maxcy Hall, Room 405

Office Hours: Mondays 2:00 p.m. – 4:00 p.m.

I. Course Description.

A great deal of sociological inquiry relies on quantitative methods (e.g., statistical analyses) to investigate social phenomena. Research using large surveys, public opinion polls, and census data document, describe, and explain a wide range of sociologically motivated research questions. Students in the social sciences must therefore have a basic understanding of statistics, whether to understand, critique, or conduct quantitative social research. This course will provide you with some of these fundamental skills. In addition, we will use a statistical software package (SPSS) to analyze real data. One of the primary goals for the course is to provide students with knowledge and appreciation for how statistics are applied by using everyday examples from the media as well as findings from noteworthy social research and data collected from students in the class.

II. Course Objectives.

The major objectives for this course are: (1) to become familiar with the basic concepts, terminology, and procedures of data analysis, as well as the logic underlying those procedures, (2) to be able to calculate basic descriptive and inferential statistics and interpret them, (3) to acquire statistical literacy and an appreciation of when, why, and how formulas and statistical tests are used, (4) to learn how to use a statistical software package (SPSS) to perform analyses of quantitative data, and (5) to apply new knowledge of statistics in thinking critically about scientific and popular press reports of research findings.

III. Course Prerequisites.

There are no prerequisites for this course.

IV. Course Expectations.

There will be many new terms and definitions that must be learned through study, discussion, and homework exercises. Please note, the material must be read on schedule and learning is cumulative. Each new idea will continue to be used in subsequent chapters and assignments. Because of its cumulative nature, misunderstandings can compound quickly and students who miss class or do not keep up with the readings often have difficulty catching up. It is strongly suggested that students attend all classes and keep up to date in this course. Class attendance is important for discussion, to answer your questions, and to obtain my perspective on the material.

V. Course Materials.

Required text (1): Chava Frankfort-Nachmias and Anna Leon-Guerrero. 2009. Social Statistics for a Diverse Society, 5th edition. Thousand Oaks, CA: Pine Forge Press.

This textbook is available in the Brown Bookstore. Several copies of the textbook are also on reserve in the Rockefeller Library. The textbook includes exercises at the end of each chapter and comes with a CD, which includes additional review examples and exercises. The textbook has a website with exercises, quizzes, and research examples as well:

<http://www.pineforge.com/frankfort-nachmiasstudy4/index.htm>.

Students are strongly encouraged to complete the assigned readings twice: BEFORE the appropriate lecture and AFTER the material has been covered in class. Familiarity with basic concepts and techniques prior to the lectures will enhance your comprehension and your ability to answer and ask sensible questions during class.

Required text (2): William E. Wagner, III. 2010. Using SPSS for Statistics and Research Methods, 2nd edition. Thousand Oaks, CA: Pine Forge Press.

This short text primarily serves as a reference tool for you in the lab. There will be no assigned readings from this text, but you will find it invaluable when analyzing data in SPSS. Many past students have commented on how useful this text has been both in this class and beyond.

MyCourses website: The course website supplies important information and materials for the course, including syllabus, lecture Powerpoint slides (posted after class), computer lab information (including notes about SPSS computer software, data sets, etc.), homework assignments, and homework problem answers.

Additional Materials: Students will be allowed to bring a small hand calculator (add, subtract, multiply, divide, and square root) to exams (no cell phone calculators or elaborate scientific calculators permitted). Please purchase one before exam time.

VI. Course Requirements.

There are four components to the course: in-class assignments, computer lab assignments, homework assignments, and three exams (two midterms and one final).

In-class assignments. There will be several opportunities for in-class group assignments over the course of the semester. These exercises are intended to give you an opportunity to apply the concepts presented in the readings, as well as the lectures. If an assignment is given in class, you will have ample class time to complete it. You will receive credit for in-class assignments if you are **in class** on those days. These in-class assignments **can not** be made up. If you miss class, you will receive **no credit** for that day. **Attendance is strongly encouraged.**

Being present for all lectures and lab sessions is absolutely crucial to your success in this course. Students are also responsible for all information and announcements provided during the lectures *whether or not you are present*. In addition, we will cover some material in class that is not found in the text or on the course slides. If a student must miss a class, s/he should get the notes from another student. The professor and TA will not give students copies of class lecture notes nor will the professor or TA use office hours time to repeat a missed lecture.

Computer Lab Assignments. Each student must attend a series of computer lab sessions (for 50 minutes each) in CIT Building Room 265. These sessions (five in total) are **required** and they are constructed for your benefit. In the sessions, your TA will teach students how to manage and analyze data in SPSS and then give students a brief SPSS assignment. Your TA will also be available during this time to answer general questions and help with homework assignments.

Currently, computer lab sessions are scheduled in Banner during the following time slots:

- | | |
|--------------------------------|----------------------------------|
| A. Mondays 1:00 – 1:50 p.m. | D. Wednesdays 6:00 – 6:50 p.m.* |
| B. Mondays 5:00 – 5:50 p.m. | E. Wednesdays 11:00 – 11:50 a.m. |
| C. Wednesdays 1:00 – 1:50 p.m. | F. Fridays 11:00 – 11:50 a.m.* |

*However, two of these sessions are likely to be cancelled due to low enrollment. The two sessions most likely to be cancelled at this time are Wednesdays at 6 p.m. and Fridays at 11 a.m. When registering for lab sessions, please take these possible cancellations into consideration. If you are currently registered for one of these “possibly cancelled” labs, please drop this lab and re-registered for a different time slot.

Computer lab sessions will be held on the following weeks:

- | | |
|--|---|
| Week 3 (September 21 st – 25 th) | Week 8 (October 26 th – 30 th) |
| Week 4 (September 28 th – Oct 2 nd) | Week 11 (November 16 th – 20 th) |
| Week 7 (October 19 th – 23 rd) | |

Each student must register for **BOTH** the course and for one computer lab session on Banner. The course and lab information are not linked, so Banner will not automatically register you in a lab session if you are registered for the course and vice versa. The professor or TA cannot register you. Students should register to get into the course FIRST and then sign up for a lab. Students already registered for the course will be given priority for lab spaces. Students who sign up for a lab but cannot get into the course will be required to drop the lab.

Students must be registered for a lab session via Banner to remain in the course. When the lab sessions fill up, no additional students may take the class, whether or not they are signed up for the course on Banner.

Students must attend the lab sessions that they have registered for. If students cannot get into lab sessions that fits their schedules, then they must drop the class. The lab sessions are capped at 24 students and cannot accommodate extra students. Students who are in the course and have signed up for one lab session and wish to switch to another can only switch if there is room in another session. Students must first go to Banner and drop from the lab to which they are registered and then add another lab session, space permitting. The professor or TA cannot switch you from one lab session to another.

There is no waiting list for the course or for lab sessions. Once the labs are full, students who wish to add the course must monitor Banner to see if lab spaces open when/if other students drop. If the lab session(s) that fit your schedule are full and you cannot get into one that fits your schedule (even if other lab sessions still have space), then you must drop the course. Each student must attend the lab sessions, and you may only attend the session that you have registered for.

Your TA will take attendance in the lab sessions the first week of lab and anyone who is not there will forfeit the lab session space. If you have a conflict and cannot come to the session this week only, please email your TA so you do not get dropped from the course.

Computer lab assignments will be given out the day of the lab and will not be due until the following computer lab meeting. Ample time will be given to complete these lab assignments during the class period, so use your time wisely. Most students are able to complete the lab assignments during class time. These assignments will be graded by your TA. Please note: you will only receive full credit if you complete the entire assignment.

Homework Assignments. Homework assignments are given to aid students in understanding course concepts before the exams. Homework assignments involve hand calculation and written work. There are 6 homework assignments, each worth 5 points. Homework assignments are graded on both correct answers and completion. To get the full 5 points, each student must complete each question and get the question correct. You will receive 4 points if you complete each question, but at least one question is incorrect. Three points will be given if some questions are incomplete, but all questions completed are correct. If there are incomplete questions and at least one is incorrect, students will receive two points. One point will be given to those students who get all questions wrong, whether they answered them all or not.

To get any of the 5 points, each homework assignment must be submitted on time. All homework assignments must be passed in directly to your TA at the beginning of the class period in which they are due. There will be **NO EXCEPTIONS**. If you forgot to print it out before you come to class or you do not come to class, you will receive **no credit**. If you have a valid excuse for missing class, your assignment (accompanied with written documentation of the cause of the missed class) must be passed in directly to your TA (not merely placed in their mailbox) within one week of the due date. Please make arrangements with your TA to do this.

Students should look over and start working on the homework problems as soon as they are distributed in class (usually 1 week before the homework is due) and use the computer lab sessions to ask your TA about problems you are having trouble with.

Homework must be handed in as hard copy. They may be hand-written or typed. Please include page numbers and your name on each page.

All answers to the homework problems will be posted on MyCourses once grading is complete. If you have concerns regarding a specific problem, you should consult the answers on MyCourses to see what I am looking for before you consult with your TA. You can pick up your graded homework from your TA. It is your responsibility to pick up your graded homework assignments from your TA.

Exams. There will be two midterm exams and one final exam. The two in-class midterm exams will take place on **October 7th** and **November 6th**. These exams will be closed book/notes. Any formulas or tables that are needed for reference will be provided during the exam period. Students will be allowed to bring a small hand calculator to exams (no cell phone calculators or elaborate scientific calculators permitted). Exams consist of multiple choice, computational, and interpretive questions.

Exams will begin promptly. No additional time to finish an exam will be allowed for those tardy to exams. Students who receive extended time on exams must provide Prof. Spearin with written certification by **September 21st**.

I will only reschedule a missed exam under extreme conditions (i.e. death in the immediate family, an illness or accident requiring medical attention, an automobile accident on the way to class, court appearance). Documentation of the cause of the missed exam must be presented in writing from a dean or a doctor within one week of the exam date. If events do not warrant a make-up exam, you will receive a grade of 0 on that exam. Please contact myself and your TA as soon as possible to schedule a make-up exam. Scheduling of the make-up exam will be determined by your TA, so please remember to be flexible. She is doing you a favor.

The final exam will be held at 2:00 p.m. on **December 14th**. The final exam time is pre-scheduled by the University and cannot be changed, and early exams cannot be given according to University policy. Under **NO CIRCUMSTANCES** will I allow any student to take their final exam at a different time. Please plan your winter break travels accordingly.

Exams will be graded on the following scale: A (90-100%), B (80-89%), C (70-79%), No credit (<=69%). If the class as a whole performs particularly poorly on an exam, the grades may be curved. The curve will be determined by the professor.

VII. Grading.

Based on past experience with this course, it is unlikely that I will grade on a curve. You will get the grade that you earn. Your final course grade will be based on the following components and according to the following distribution:

In-class Assignments	5%
Computer Lab Assignments	10%
Homework Assignments	20%
Midterm Exams	40%
<u>Final Exam</u>	<u>25%</u>
Total	100%

Please note: No extra credit or make-up exams for failing students will be offered in this course.

VIII. Course Policies and Etiquette.

Please come to class and be in class on time. Tardiness, in addition to absences, will affect your grade and are strongly discouraged. Unless you become ill or speak to me about leaving early for a specific purpose, expect to stay for the entire class.

Plagiarism can occur by accident, in working together, or when work is borrowed. Working together in small groups can be fun and helpful. But, if you write your assignments together, it may appear to me that the work is too identical. It is safest to work together at the reviewing stage, but not in the writing stage of your work. Take steps to insure that plagiarism does not

occur. Please see the Brown University Academic Code for information on academic dishonesty. http://www.brown.edu/Administration/Dean_of_the_College/academic_code/.

Incomplete grades will not be awarded. Extensions will be considered only under extreme circumstances pertaining to family or medical emergencies and I must receive a note from a dean. Cell phones and SMS are not tolerated.

I will be unavailable to interact via email in the evening and most times during the weekends. However, I will do my best to reply to your inquiries as soon as possible. While your TA and I will try to respond in a timely manner to your email messages (usually the same day), we cannot guarantee that questions asked the night before an exam or when homework is due will be answered immediately. Extensive questions should be addressed during lab sessions or office hours.

IX. Readings and Assignments

You are responsible for the assignments on the dates listed. You should read ahead as some assignments will require planning and extra time. The following is an outline of the topics we will cover and the chapters from the textbook assigned for each topic. The outline is subject to revision, depending on how the course progresses.

- Week 1** (September 9th and 11th)
Course Introduction and Math Review
- Week 2** (September 14th, 16th, & 18th)
Research Design, Variables, and Describing Data
Reading: Frankfort-Nachmias & Leon-Guerrero, Chs. 1 - 3
Assignments: Homework #1 distributed
- Week 3** (September 21st, 23rd, & 25th)
Central Tendency and Variability
Reading: Frankfort-Nachmias & Leon-Guerrero, Chs. 4 & 5
Assignments: Homework #1 due (9/25)
Homework #2 distributed
SPSS Lab Session #1
- Week 4** (September 28th, 30th, & October 2nd)
The Normal Curve and Z Scores
Reading: Frankfort-Nachmias & Leon-Guerrero, Ch. 6
Assignments: Homework #2 due (10/2)
SPSS Lab Session #2
- Week 5** (October 5th, 7th, & 9th)
Exam Review and Introduction to the Wonders of Sampling
Assignments: EXAM I (10/7)

- Week 6** (October 12th, 14th, & 16th) – NO CLASS 10/12
Sampling
Reading: Frankfort-Nachmias & Leon-Guerrero, Ch. 7
Assignments: Homework #3 distributed
- Week 7** (October 19th, 21st, & 23rd)
Estimation
Reading: Frankfort-Nachmias & Leon-Guerrero, Ch. 8
Assignments: Homework #3 due (10/23)
Homework #4 distributed
SPSS Lab Session #3
- Week 8** (October 26th, 28th, & 30th)
Hypothesis Testing – One Sample
Reading: Frankfort-Nachmias & Leon-Guerrero, Ch. 9
Assignments: Homework #4 due (10/30)
SPSS Lab Session #4
- Week 9** (November 2nd, 4th, & 6th)
Hypothesis Testing – Two Samples
Assignments: EXAM II (11/6)
- Week 10** (November 9th, 11th, 13th)
Crosstabulations and Measures of Association
Reading: Frankfort-Nachmias & Leon-Guerrero, Chs. 10-12
Assignments: Homework #5 distributed
- Week 11** (November 16th, 18th, & 20th)
Correlation and Regression
Reading: Frankfort-Nachmias & Leon-Guerrero, Ch. 13
Assignments: Homework #5 due (11/18)
Homework #6 distributed
SPSS Lab Session #5
- Week 12** (November 23rd, 25th, & 27th) - NO CLASS 11/25 & 11/27
Examples from the Student Survey
- Week 13** (November 30th, December 2nd, & 4th)
Multiple Regression and Analysis of Variance
Reading: Frankfort-Nachmias & Leon-Guerrero, Ch. 14
Assignments: Homework #6 due (12/4)
- Week 15** (December 7th, 9th, & 11th)
Exam Review and Reading Week
- Week 16** (December 14th)
Final Exam – 2:00 pm